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WILD FLOWERS OF AMERICA



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“THE WILD FLOWERS OF AMERICA.”

The Greatest Success of the Times.

It's only a few days since the first of the Portfolios of “Wild Flowers of America” was ready for distribution and yet its reception seems already as if the whole nation was singing its praises. From College Presidents, Botanical Professors—teachers of all kinds, Senators, Congressmen, Lawyers, Doctors, Students and the great mass of thinking people, letters of the warmest commendation are pouring in, filling the mails, and constituting at once a demonstration rarely, if ever, approached in the history of popular publications in America. From the mass of letters we publish a few, selecting mostly those of college graduates and others whose actual experience makes them judges of the work they are writing about. We are just as grateful for the letters and telegrams and postal cards from the tens of thousands of young women and young men, whose admiration seems boundless; and may at another time show appreciation of them.

A National Work Receives a National Testimonial.

J. HAVENS RICHARDS, President Georgetown College, West Washington, D. C.:

“The beauty and artistic excellence of the colored drawings are worthy of high praise, * * * and I am confident that by its attraction many young people will be led to undertake and pursue with the greatest pleasure a study which they might otherwise find distasteful.”

J. V. COCKRILL, Congressman, Thirteenth District, Texas, Graduate of Chapel Hill College, Ex-District Judge:

“Is both beautiful and interesting.”

A. C. HARMER, Congressman, Philadelphia, representing Fifth District, Pennsylvania:

“I have carefully examined Mr. Buek's works of the ‘Wild Flowers of America,’ and think them exquisite.”

DAN WAUGH, Congressman Ninth District, Indiana, Ex-Circuit Judge, member Seventh Agricultural Committee, House of Representatives:

“I regard it an excellent work of art, which would be an adornment to any library.”

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GEO. W. SMITH, Congressman Twentieth District, Illinois, Graduate McKendree College, Lebanon, Ill.:

“A valuable, beautiful and instructive book, and should be in every school-room in the land.”

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“In my judgment, will be a most valuable acquisition to the libraries of those who love the beautiful in nature.”

CHAS. H. MORGAN, Congressman, Fifteenth District, Missouri:

“Deserves and will receive the encomiums from all lovers of the beautiful, and its correctness and completeness make it one of the most valuable contributions to American literature.”



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 AMERICAN CENTAURY.
SABBATIA STELLARIS.
 JULY.



— 130 —
 SWEET-SCENTED BEDSTRAW.
GALIUM TRIFLORUM.
 JULY.

PLATE 129.

AMERICAN CENTAURY. SABBATIA STELLARIS. (GENTIAN FAMILY.)

Smooth, probably annual; stem erect, widely branching; leaves opposite, sessile, lowest oblong spatulate, uppermost linear, acute at both ends, margins entire or nearly so; flowers in open, leafy cymes; calyx lobes five, long and narrowly linear; corolla rotate, five-parted.



THE true Centaury of Europe, a smooth little plant with pink flowers, is more or less naturalized along the shores of one or two of the Great Lakes. The Sabbatias, a genus of beautiful plants most abundant along the Atlantic Coast and in the Southern States, stand for the Centaury here. Most European plants are represented in this country by others more or less resembling them. Upon these, in fond remembrance of the dear flowers of Old England, the early colonists loved to bestow English names. So we have Cowslips, Bluebells, Mayflowers, Centaury. A good usage, for it has transferred to the unknown plants of the New World some of the wealth of association possessed by their transatlantic cousins.

Sabbatia stellaris, which has received the Centaury's name along with others of its sisters, is a beautiful flower of the coast-bordering marshes as far South as Florida. The usual elegance of form of the gentians is displayed by it. Its handsome flowers are normally of a clear pink

"As if a lily flushed
With a rose's red heart's tide,"—

but are sometimes white as the driven snow. They open to the sun of midsummer. An upland species, Sabbatia angularis, has a rich, entrancing fragrance to the blossoms. Some species have a perfect, five-pointed, yellow star in the center of the corolla.

PLATE 130.

SWEET-SCENTED BEDSTRAW. GALIUM TRIFLORUM. (MADDER FAMILY.)

Stems weak, reclining, branching, four-angled, angles slightly winged and retrorsely hispid; leaves in whorls of four to six, oblong-lanceolate, mucronate, margins and prominent mid-rib hispid; flowers on long, three-flowered, axillary peduncles; corolla small, wheel-shaped, four-parted, greenish; fruit covered with hooked prickles.



THE perfume of the orchids is often too rank, too earthy, too suggestive of the slime from which they arise, to be grateful to us. Thoreau has it that the snake-mouthed Pogonias is distinctly reptilian in its odor. But there is a tropical, climbing orchid that yields a fragrance unsurpassed. It is the vanilla, from whose pods the familiar essential oil is expressed. Some of our North American plants mimic this odor. One of these is Trilisa, the Vanilla-plant, used in the Southern States for flavoring tobacco. Two familiar grasses, the Sweet Vernal Grass, imported from Europe, common in the June meadows, and the Vanilla Grass exhale the same perfume. Oddly enough one of the insignificant little bedstraws, Galium triflorum, has something of this aromatic fragrance. When dried the leaves give forth a faint odor suggestive of vanilla.

The sweet-scented bedstraw is a common plant in deep, rich woods. Its weak stems bear leaves in circles of four or six, and tiny greenish flowers. The small dry fruit, when ripe, clings to us by its numerous tiny grappling-hooks. It is found over the whole of this continent and also in Europe. The small blossoms open in June and July.



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MARSH EVERLASTING PEA.

LATHYRUS PALUSTRIS.

JUNE.



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COMMON TANSY.

TANACETUM VULGARE.

AUGUST.

PLATE 131.

MARSH EVERLASTING-PEA. LATHYRUS PALUSTRIS. (PEA FAMILY.)

Stem erect, or reclining, usually more or less winged, smooth; stipules prominent, ovate-lanceolate, acuminate; leaves pinnate, the terminal leaflet changed into a slender tendril; leaflets oblong-lanceolate or linear, acute; flowers few in long-peduncled racemes; corolla comparatively small, blue.

FOR those who look to the flowers, not for the ever-present lesson of beauty with a purpose, but to trace some significance in the blossoms to human thoughts, emotions, passions, the Everlasting-Pea bears the message of "enduring happiness," a pleasant meaning truly to shine from the face of a flower.

The Marsh Everlasting-Pea, *Lathyrus Palustris*, of Europe, is also found in the cooler parts of North America, across the breadth of the continent from the storm-tossed Atlantic to the vast Pacific. As the name tells, it loves the plenteous moisture of bogs, where its fresh green foliage and pretty blue flowers carpet the ground in great masses of bright color. A smooth plant is this Wild Pea, with mostly winged stems. It flowers in summer.

There is something honest and substantial about the beauty of the Pea Family. The locusts, with their great clusters of white or rose-colored blossoms, the purple masses of the Wistaria, the clovers—white or scarlet, crimson or yellow, the brilliant spikes of the lupines, all have this quality of solidity in their loveliness. They suggest fragrant hay, honey—amber-colored, starchy seeds full of nutriment. Even such as are not valued by the farmer borrow the semblance of utility from their cousins.

PLATE 132.

COMMON TANSY. TANACETUM VULGARE. (SUNFLOWER FAMILY.)

Stem glabrous, erect, usually two or three feet high, leafy; leaves on winged petioles, bipinnate, the segments pinnatifid, ultimate divisions sharply toothed; heads in a terminal, rather dense corymb, on clavate peduncles, rayless; achene obconical; pappus of five scales partly united.

THE yarrow, the ox-eyed daisy, the wormwoods,—these are near relatives of the Tansy, humble wayside weed. A native of Europe from the icy Arctic Ocean to the shores of the warm "Middle Sea," and of Siberia, it was brought to this country by our grandmothers, who loved a bit of tansy in a nose-gay. Driven from its corner in the garden by the advance of civilization with the prouder flowers in her train that have banished the modest favorites of a less sophisticated generation, it has sought refuge in the bye-ways.

It is now a common weed widely distributed in the East, and is making its way ever further and further westward.

Despite the absence of the circle of bright rays that make allied plants so gay in flowering, it is not an ugly plant. The small, yellow heads and the gracefully cut leaves go well together. In an odd variety the leaves are delicately crisped like those of the spinach. The meaning of the name *Tanacetum* is unknown. Equally obscure is its significance in the language of flowers, in which mystic dialect it is the symbol of a "declaration of war."



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SPREADING ASTER.
ASTER PATENS.
AUGUST.



— 134 —
YELLOW FOX-GLOVE.
DASYSTOMA (GERARDIA) QUERCIFOLIA.
JULY.

PLATE 133.

SPREADING ASTER. ASTER PATENS. (SUNFLOWER FAMILY.)

Perennial, rough-pubescent; stem somewhat brittle, erect, widely branching; root-leaves ovate, not cordate; stem-leaves clasping by a heart-shaped base, oblong-ovate, usually narrowed in the middle, mucronate, rather thick; heads long-peduncled, racemously arranged on the upper side of the branches; involucre much imbricated, bracts green-tipped; rays showy, violet.



WE are told by the hermit of Walden of the part the asters and golden-rods play in the economy of the insect-world, when fading summer carries with her one by one the flowers whereon the tiny, winged botanists depend for sustenance.

On the last day of September, "By the roadside at Walden, on the sunny hillside sloping to the pond, we saw a large mass of golden-rod and aster, several rods square and comparatively fresh. Getting out of our wagon, we found it to be resounding with the hum of bees. It was about one o'clock. Here were far more flowers than we had seen elsewhere, and bees in great numbers, both bumble-bees and honey-bees, as well as butterflies, wasps and flies."

There is no handsomer aster than the Spreading Aster. Others have finer foliage, glossier and more shapely leaves, but none excel it in beauty of flowers. The head, yellow-centered with its border of deep violet rays, is like a cheery round face in a fringed night-cap, smiling and happy. A more regal color than that of these ray-flowers of aster patens, 'twould be hard to find. It is almost precisely the shade of rich purple-blue that belongs to our common Blue Violet.

PLATE 134.

YELLOW FOX-GLOVE. DASYSTOMA (GERARDIA) QUERCIFOLIA. (FIGWORT FAMILY.)

Stem erect, branching, glabrous and more or less glaucous; leaves alternate, ovate-oblong in outline, pinnatifid, the uppermost almost entire; flowers on short peduncles, in terminal, bracted racemes; calyx small, five-toothed; corolla large, campanulate-funnel-form, bright yellow.



FLOWER never absent from an English landscape is the Digitalis. Its long spikes of large, drooping, purple flowers stand sentinel-wise in every pasture and on every hillside, in summer. The children love these flowers. They pull them and place them on their fingers, sportively calling them Fox-gloves. The poets have much to say of them. Robbie Burns, in one of his sweet idyllic songs, numbers them with the fairest flowers of his beloved Scotland—

"Mourn little harebells o'er the lee;
Ye stately fox-gloves fair to see;
Ye woodbines hanging bonnilie,
In scented bow'rs;
Ye roses on your thorny tree,
The first o' flow'rs."

Yet this, like many another fair plant, hides venom 'neath its beauty. The deadly alkaloid, digitalin, a valued medicine when rightly used, is a dangerous poison to him who swallows it unwittingly.

Gerardia quercifolia, a tall plant of copses and open woods in North America, is not unlike the Digitalis of Europe. Its yellow blossoms are shaped like the Fox-glove bells, so that it has been named Yellow or False Fox-glove. It is a smooth plant, with the lower leaves cut somewhat like those of the white oak, hence its specific name. It ranges from Canada, southward to Florida and westward to Minnesota.



— 135 —
 CHECKERBERRY.
 GAULTHERIA PROCUMBENS.
 JUNE—JULY.



— 136 —
 SHOOTING STAR.
 DODECATHEON MEDIA.
 MAY—JULY.

PLATE 135.

CHECKERBERRY. GAULTHERIA PROCUMBENS. (HEATH FAMILY.)

Suffrutescent, smooth; stems low, erect from long, slender, creeping, woody rootstocks; leaves evergreen, thick, upper surface shining, short-petioled, ovate, mucronate, sharply serrate; flowers axillary, on bracted pedicels; flowering-calyx small, five-toothed; corolla cylindrical-urceolate, five-toothed, white; capsule five-celled, berry-like, surrounded by the enlarged, fleshy calyx.



OUSIN-GERMAN to the beautiful trailing-arbutus is the small Gaultheria, one of the most deliciously fragrant of our native plants. The shining green leaves do not fall in autumn, but remain through the winter, safe-hidden under the pitying snow. The flowers are small, and single on their stalks. The white corolla is shaped like an antique urn. As it withers it gives place to a small, berry-like fruit, whitish at first, but turning a vivid red. This has earned it the name of Checkerberry in New England. Sometimes it is called Partridge-Berry, but that name rightfully belongs to *Mitchella repens*. Like the true Partridge-Berry, it spreads a welcome feast for birds that do not migrate to the South in winter.

In the mountains it is known as 'Tea-berry or Mountain-tea, and its leaves are used in various decoctions highly esteemed as remedies. When crushed the leaves yield a warm, aromatic fragrance, much like that of the tender inner bark of the Cherry Birch. Partly from the Checkerberry, partly from the birch-bark, the fragrant Oil of Wintergreen is obtained. The true Wintergreen, *Pyrola*, is odorless. *Gaultheria procumbens* is native from high northern latitudes southward, in mountain woods, to Georgia.

PLATE 136.

SHOOTING STAR. DODECATHEON MEADIA. (PRIMROSE FAMILY.)

Perfectly smooth; roots fibrous, thickened, clustered; leaves all radical, large, oblong or obovate, obtuse, on margined petioles, rather veiny, margins obscurely sinuate; scape simple, one foot or so in height, bearing at summit a bracted umbel of large flowers; corolla five-lobed, lobes soon reflexed.

"Where the bee sucks, there suck I;
In the Cowslip's bell I lie;
There I crouch when owls do cry."



UCH is Ariel's elfin song. Even in Shakespeare's time the Cowslip was a favorite flower. Men likened its fragrance to that of the lips of kine, fresh from browsing on the perfumed meadow grass. No plant has won itself more into the life of the English-speaking races than this. In this country we have an hereditary fondness for it. We have looked for a like flower here whereon to bestow the treasured name.

We chose a handsomer plant, the Shooting Star, and christened it "Cowslip." But, alas! it has no fragrance. Few showier, more beautiful flowers adorn our landscapes. What an odd plant it is as we come upon it in rocky glen or on woodland bank, with the cluster of smooth green leaves and the bare stalk, from out of their midst, raising the cluster of flowers! Quaint blossoms are these, looking like white butterflies with folded wings, alit for a second at the summit of the stalk. The petals are bent backward. This, with the pointed cluster of stamens, gives an alert look to the flower.

PLATE 137.

MAY WEED. ANTHEMIS COTULA. (SUNFLOWER FAMILY.)

Pubescent annual; stem erect, branching, one to two and a half feet high, leafy; leaves alternate, finely dissected, segments narrowly linear; heads solitary at the ends of the branches; rays half an inch long, white; disk yellow.

"June 25—Maruta Cotula, or Mayweed. Why so named? Just begins, with its strong-scented leaf. It has taken up its position by the roadside close to the ruts—in bad taste."—*Thoreau*, "Summer."



SOME plants are endowed with odors as disagreeable to us as the scent of another plant is grateful. We wonder at the repulsiveness of the carrion-flower, for instance, or the skunk-cabbage. But if we reflect for a moment that plants exist for themselves and not for us, and that we have made some of them useful to us by adapting ourselves to them, while others to which we are not drawn by ties of habit seem offensive, we will cease to marvel. The rank odor of the Mayweed, then, is of use to the plant itself. How? Doubtless friendly insects are attracted thereby, or unwelcome guests are repelled. Most of these malodorous flowers are fertilized by flies, whose olfactory nerves are tickled by other perfumes than those that appeal to bee or butterfly.

We may wonder with *Thoreau* why this common roadside weed has been called Mayweed. With us it commences to flower in June, except in the South. It was introduced from Europe, but is now common everywhere in Eastern North America.

PLATE 138.

ENGELMANNIA. ENGELMANNIA PINNATIFIDA. (SUNFLOWER FAMILY.)

Whole plant rough-hairy; stem erect, one or two feet high, branching above; root-leaves long-petioled, pinnately parted, segments coarsely toothed; uppermost stem-leaves sessile; heads on long, few-flowered peduncles; involucre much imbricated; rays bright yellow; achenes roughened.



THIS is one of those rough, sturdy plants of the sunflower family that find life on the prairies much to their taste. The fierce solar beam that would soon scorch and wither the delicate little flowers of our eastern forests or of the western mountains, is as grateful as morning dew to the denizens of the great plains. They have become fitted during countless generations to withstand the unbroken power of the prairie's midsummer sun. Nature has tenderly clothed them with a garment of shaggy hairs or of fine wool, which keeps the moisture within from escaping and prevents the heat without from entering too freely.

Engelmannia is a rather coarse plant with deep-cut leaves and small yellow heads, not unlike those of its relative, the garden fever-few, in general appearance. It is found in Kansas southward to Louisiana and westward to Arizona, straying northward.

This plant was dedicated by two of the greatest of American botanists to a third. John Torrey and Asa Gray, who worked together for many years in bringing to knowledge the plants of Western North America, named the *Engelmannia* for their distinguished friend and co-laborer, Dr. Engelmann, of St. Louis. Engelmann was an able and exceedingly industrious botanist, who studied the pines, oaks, grapes, cacti and other very difficult groups.



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MAY-WEED.
ANTHEMIS COTULA.
JULY.



— 138 —
ENGELMANNIA.
ENGELMANNIA PINNATIFIDA.

PLATE 139.

YELLOW MELILOT, SWEET CLOVER. MELILOTUS OFFICINALIS. (PEA FAMILY.)

Annual, smooth or nearly so; stem erect, somewhat striate; stipules lanceolate, sharp-pointed; leaves alternate, long-petioled, pinnately trifoliate; leaflets obovate-oblong, sharply dentate, obtuse at apex, acutish at base; flowers small, yellow, in long, slender, axillary racemes; pod exceeding the calyx, one or two-seeded.



IN the Old World, where land is cultivated to the utmost, where soil so barren as to be apparently worthless is made to yield bounteous crops, the lesson of tilth has perforce been better learned than by our own farmers, who have a wide continent to choose from. Hence plants that are scorned by us as worse than useless are prized by the European agriculturist for forage. Among these are the melilots, yellow and white, common here as weeds of wayside and waste-ground, but rarely used as pasturage. In the Old World the young shoots are esteemed for this purpose, especially as the melilots will grow in the poorest soil.

The Yellow Melilot, like its sister, *Melilotus alba*, has come to us from Europe. Wide-spread in Eastern North America, it is working its way steadily westward, especially along railroad tracks, stealing a ride now and then like any human tramp. It finds a congenial soil in the loose earth of embankments. It is rather a conspicuous plant when growing in quantity, the bright yellow flowers making a brave display. Its delightful fragrance when dried has earned it the name of Sweet Clover.

PLATE 140.

LARGE-FLOWERED BLUE-EYED GRASS. SISYRINCHIUM GRANDIFLORUM. (IRIS FAMILY.)

Perennial, quite smooth; roots clustered, fibrous, fleshy; stems flattened, winged, longer than the leaves; basal leaves short, membranaceous, upper, long, linear, grass-like; flowers on slender pedicels, in an umbellate cluster from a spathe of two leaves; perianth segments six, ovate-oblong, blue-purple.



ANY plants of Eastern North America are represented by corresponding species in the western part of the continent, often without any related forms being found in the region between. Thus the Box-Elder, Button-wood, Spikenard, Sweet Shrub and scores of other herbs, shrubs and trees have their counterparts on the Pacific Coast. So the pretty little Blue-eyed Grass of meadows and fields eastward, is replaced in the country that slopes to the great western ocean by showier *Sisyrinchiums*, with larger flowers.

Of these, *Sisyrinchium grandiflorum* is perchance the finest. It is an elegant plant, with its amethystine flowers in a severely simple setting of narrow, grass-like leaves. It is one of the plants that Thoreau would call "all flower." The foliage counts for nothing. It is lost in the grass amid which the *Sisyrinchium* grows. This Blue-eyed Grass is rather a low plant, the stems not exceeding one foot in height. Its flowers, usually rose-purple in color, are occasionally pure white. Our eastern blue-flowered species sometimes produces white blossoms. *Sisyrinchium grandiflorum* is native in British Columbia and thence southward to Northern California, and in Idaho.



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YELLOW MELILOT, SWEET CLOVER.

MELILOTUS OFFICINALIS.

JUNE.



— 140 —

LARGE-FLOWERED BLUE-EYED GRASS

SISYRINCHIUM GRANDIFLORUM.

JULY

PLATE 141.

KING'S ERITRICHIUM. SONNEA (ERITRICHIUM) KINGII. (BORAGE FAMILY.)

Biennial, bristly-hairy; stems four to eight inches high, sparingly branched, rather leafy; leaves alternate, the radical clustered, long-petioled, spatulate, stem-leaves sessile, oblong, obtuse, papillose-roughened; flowers in dense, spike-like racemes, panicled; corolla-tube short, limb spreading, five-lobed, white; nullets roughened.



NE of the most unattractive of plant families, if we take it as a whole, is that of the Borages. Coarse, bristly plants they are, for the most part. The fruit is usually covered with hooked prickles that catch in the hair of animals, whether worn by the original owner or a successor. Even the dear little Forget-me-not would be an unattractive enough plant, if we saw only stem and leaves. It is the tiny blue blossom that looks up at us like the trusting face of a child, to which the Forget-me-not is indebted for admiration.

These rough Borages are wide-spread on the western prairies, where they find the conditions favorable to the peculiar dispersion for which they are adapted. *Sonnea Kingii*, better known by its older name, *Eritrichium*, is a native of the Pacific Coast and of western Nevada. It is a low plant with thickened roots and rather dense clusters of small white flowers.

It is interesting that the *Sonnea*, like so many western plants, is well provided with hairs, doubtless as a protection against the excessive droughts which often afflict it.

PLATE 142.

BEAR-BERRY. ARCTOSTAPHYLOS UVA-URSI. (HEATH FAMILY.)

Low shrub with scaly bark; stems trailing, much branched; leaves alternate, short-petioled, thick and evergreen, spatulate to oblong-obovate, obtuse, mid-rib thick and prominent; flowers in terminal, few-flowered racemes; corolla urceolate, five-toothed, teeth reflexed; fruit a small, red, five or ten-seeded drupe.



HIS little trailing shrub is found on rocky hillsides in the northern part of the Northern Hemisphere, circling the globe. It is a near relative of the Trailing Arbutus and the Checkerberry, resembling them in its habits. 'Tis a handsome little plant, with thick shining leaves and small clusters of white flowers, succeeded by bright red berries. Its name, both generic and specific, is a translation into Greek and Latin respectively of the English, Bearberry. Mayhap Master Bruin finds the fruit to his liking, but to us it has not a pleasant taste.

Another species of *Arctostaphylos* is found on high mountain-tops, and in subarctic regions everywhere. It has black fruit. There are many species of Bearberry in the Western States, particularly in California and British Columbia. Some are handsome shrubs of considerable size, with flowers white or flushed with rose-color. These shrubs were also much developed in past geologic periods. In Cretaceous and Tertiary strata numerous leaves have been found which are supposed to have belonged to species of *Arctostaphylos*. Indeed, the genus seems to have been more predominant formerly than it is now.



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 KING'S ERITRICHIUM.
 SONNEA (ERITRICHIUM) KINGII.
 JUNE.



— 142 —
 BEARBERRY.
 ARCTOSTAPHYLOS UVA-URSI.
 APRIL—MAY.

PLATE 143.

HEDGE-MUSTARD. *SISYMBRIUM OFFICINALE*. (CRESS FAMILY.)

Annual; stem erect with wide-spreading branches, more or less hairy, two or three feet high; leaves alternate, mucronate-pinnatifid, segments coarsely and irregularly toothed; flowers racemously disposed on the branches, very small; petals four, pale yellow; pods slender, erect, close to the stem.



THE Cress-Family, which gives us so many delicious vegetables, is also famous for the number of troublesome weeds on its roll of membership. The whitlow-grass, the Shepherd's Purse, the hated Charlock, the pepper-grass, the winter-cress and many other plants oft condemned by farmers, belong to this large family. Of these the Charlock alone, bane of grain-fields in Europe and in the northern part of this continent, needs the full array of toothsome delicacies afforded by its relatives, to balance its account of loss and harm.

The Hedge Mustard, so named, doubtless, from its habit of growing in hedgerows and shaded waste-ground and from the resemblance of its small yellow flowers to those of the true mustard, is another of the weeds for which we are indebted to the land of the black rat and the English sparrow. It is undeniably an ugly plant with its straggling branches, rendered ragged looking by the small slender pods close-pressed to the stem. The yellow blossoms are much like those of the rest of the family. Indeed, among the cresses, the differences between the flowers of different genera and species are almost limited to color.

Sisymbrium officinale is a common weed with us in the East, flowering in early summer.

PLATE 144.

WHEELER'S CHÆTADELPHA. *CHÆTADELPHA WHEELERI*. (SUNFLOWER FAMILY.)

Perennial; stem erect, much branched; lower leaves narrowly linear, the uppermost mere scale-like bracts; heads single at the ends of the branches, nearly an inch high; involucre of five, long membranaceous bracts, and a few much shorter outer ones; flowers all ligulate; pappus of rigid bristles, in five sets, one bristle of each set being longer and more rigid.



DURING the earlier half of the seventies, explorations were conducted by the United States War Department in the region west of the one hundredth meridian, under the charge of Lieut. George M. Wheeler. Portions of Colorado, Utah, Nevada, New Mexico and Arizona were traversed and investigations in every branch of science were made. One result of this admirable survey was the discovery of a large number of new plants. One of the oddest and most notable of these constituted a new genus which Gray called *Chætadelpa*, because the bristles on the seeds are assembled into groups or "sisterhoods." The plant was named *Chætadelpa Wheeleri* as a compliment to the director of the survey. When will our undiscovered plants be sought for?

The *Chætadelpa* is a low plant with wiry stems, which look quite bare with their few small leaves. The heads of flowers of a bright rose-color are very pretty, and are all the more conspicuous for the nakedness of the rest of the plant. It is native on the arid plains of Western Nevada, near the Arizona state-line, straying northward. 'Tis a rare little plant, having been encountered by only one or two collectors.



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HEDGE MUSTARD.
SISYMBRIUM OFFICINALE.
MAY—SEP.



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WHEELER'S CHÆTADELPHA.
CHÆTADELPHA WHEELERI.

W. H. HATCH, Congressman, First District, Missouri, Chairman Committee of Agriculture, House of Representatives, Washington, Representative for sixteen years, Bloomington, Ill.:

"Have no doubt that the book will be valuable as a text-book, and that it will go far toward the development of a love for the beautiful."

We fully concur in the above:

B. F. FUNK, Congressman, Fourteenth District, Illinois, Graduate Wesleyan University, Ex-Mayor Bloomington.

JAS. W. MARSHALL, Congressman, Ninth District, Virginia, Graduate Roanoke College.

JNO. DAVIS, Congressman, Fifth District, Kansas, Graduate Illinois College, one of the founders of the Agricultural College, Kansas.

S. B. ALEXANDER, Congressman, Sixth District, North Carolina, Graduate University of North Carolina, Member of the Agricultural Committee of the House of Representatives, Member State Board of Agriculture.

H. M. BAKER, Congressman, Second District, New Hampshire, Graduate of Dartmouth College, Ex-State Senator, Ex-Judge Advocate-General of New Hampshire.

J. STERLING MORTON, Secretary of Agriculture of President Cleveland's Cabinet:

"I fully agree with the above, and could not do otherwise after seeing the illustrations."

JNO. S. WILLIAMS, Congressman, Fifth District, Mississippi, Graduate University of the South, Graduate University of Virginia, Graduate University of Heidelberg, Germany:

"Is one of the best things I have seen, and the illustrations of American plants and flowers, as well as the descriptions, are most complete."

G. W. SHELL, Congressman, Fourth District, South Carolina, Member of Agricultural Committee, House of Representatives:

"Is beautiful and instructive, and would be a valuable contribution."

S. B. COOPER, Congressman, Second District, Texas:

"Impresses me with the absolute beauty and usefulness of the publication."

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